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NEWS	5	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
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NEWS	7	JAN 22	CA/CAPplus enhanced with patent applications from India
NEWS	8	JAN 29	PHAR reloaded with new search and display fields
NEWS	9	JAN 29	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS	10	FEB 15	PATDPASPC enhanced with Drug Approval numbers
NEWS	11	FEB 15	RUSSIAPAT enhanced with pre-1994 records
NEWS	12	FEB 23	KOREAPAT enhanced with IPC 8 features and functionality
NEWS	13	FEB 26	MEDLINE reloaded with enhancements
NEWS	14	FEB 26	EMBASE enhanced with Clinical Trial Number field
NEWS	15	FEB 26	TOXCENTER enhanced with reloaded MEDLINE
NEWS	16	FEB 26	IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS	17	FEB 26	CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases
NEWS	18	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format.
NEWS	19	MAR 16	CASREACT coverage extended
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NEWS	21	MAR 22	LWPI reloaded
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NEWS	23	APR 02	JICST-EPLUS removed from database clusters and STN
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NEWS	27	APR 30	INPADOC replaced by INPADOCDB on STN
NEWS	28	MAY 01	New CAS web site launched
NEWS	29	MAY 08	CA/CAPplus Indian patent publication number format defined
NEWS	30	MAY 14	RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS	31	MAY 21	BIOSIS reloaded and enhanced with archival data
NEWS	32	MAY 21	TOXCENTER enhanced with BIOSIS reload
NEWS	33	MAY 21	CA/CAPplus enhanced with additional kind codes for German patents
NEWS	34	MAY 22	CA/CAPplus enhanced with IPC reclassification in Japanese patents
NEWS	EXPRESS		NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS	HOURS		STN Operating Hours Plus Help Desk Availability
NEWS	LOGIN		Welcome Banner and News Items
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=> s (bone replacement)

L1 3143 (BONE REPLACEMENT)

=> s l1 and orthophosphate

L2 53 L1 AND ORTHOPHOSPHATE

=> s l2 and diphosphate

L3 9 L2 AND DIPHOSPHATE

=> Ca10Na(PO4)7

CA10NA(PO4)7 IS NOT A RECOGNIZED COMMAND

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=> s L3 and Ca10Na(PO4)7

MISSING OPERATOR 'CA10NA(PO4'

The search profile that was entered contains terms or

nested terms that are not separated by a logical operator.

=> s L3 and (Ca10Na(PO4)7)

MISSING OPERATOR 'CA10NA(PO4'

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s 13 and CaNaO4

L4 0 L3 AND CANAO4

=> s 13 and amorphouse phase

L5 0 L3 AND AMORPHOUSE PHASE

=> s 13 and amorphous phase

L6 6 L3 AND AMORPHOUS PHASE

=> d 16 1-16 ibib abs

L6 ANSWER 1 OF 6 USPATFULL on STN

ACCESSION NUMBER: 2004:227045 USPATFULL

TITLE: Bone replacement material with orthophosphate

INVENTOR(S): Berger, Georg, Zepernick, GERMANY, FEDERAL REPUBLIC OF  
Spitzer, Andrea, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Jager, Christian, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Pauli, Jutta, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Gildenhaar, Renate, Berlin, GERMANY, FEDERAL REPUBLIC OF  
OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004175430	A1	20040909
APPLICATION INFO.:	US 2003-689217	A1	20031020 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2002-10249626	20021021
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Stephan A. Pendorf, Pendorf & Cutliff, 5111 Memorial Highway, Tampa, FL, 33634-7356	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	800	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a material with orthophosphate and having a high solubility which can be used as a bioactive bone replacement material and as a substrate material in biotechnology. According to <sup>31</sup>P-NMR measurements, the new material comprises Q<sub>0</sub>-groups of orthophosphate and Q<sub>1</sub>-groups of diphosphate, the ortho-phosphates or Q<sub>0</sub>-groups making up 65 to 99.9% by weight relative to the total phosphorus content of the finished material and the diphosphates or Q<sub>1</sub>-groups making up 0.1 to 35% by weight relative to the total phosphorus content of the finished material, and wherein according to X-ray diffractometric measurements and relative to the total weight of the finished material, 35 to 99.9% by weight of a main crystal phase consisting of Ca<sub>10</sub>(PO<sub>4</sub>)<sub>7</sub>, Ca<sub>10</sub>(K(PO<sub>4</sub>))<sub>7</sub>, mixtures thereof or mixed crystals according to the general formula Ca<sub>10</sub>(K<sub>x</sub>Na<sub>1-x</sub>(PO<sub>4</sub>))<sub>7</sub>, where x=0 to 1, is contained in the bone replacement material and 0.1 to 25% by weight of a substance selected from the group consisting of Na<sub>2</sub>CaP<sub>20</sub>, K<sub>2</sub>CaP<sub>20</sub>, Ca<sub>2</sub>P<sub>20</sub> and mixtures thereof is contained as a secondary crystal phase, and the X-ray amorphous phases contained besides the main crystal phase jointly make up 0.1 to 65% by weight.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 2 OF 6 USPATFULL on STN

ACCESSION NUMBER: 2004:113706 USPATFULL

TITLE: Powder mixture for resorbable calcium phosphate biocements

INVENTOR(S): Berger, Georg, Zepernick, GERMANY, FEDERAL REPUBLIC OF  
Marx, Heidi, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Jager, Christian, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Pauli, Jutta, Berlin, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004086545	A1	20040506
	US 7223420	B2	20070529
APPLICATION INFO.:	US 2003-689221	A1	20031020 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2002-10249625	20021021
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Stephan A. Pendorf, Pendorf & Cutliff, 5111 Memorial Highway, Tampa, FL, 33634-7356	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	668	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a powder mixture for resorbable calcium phosphate biocements, which mixture consists of 40-99% by volume of powder having a particle size of 0.1-10  $\mu\text{m}$ , 1-20% by volume of powder having a particle size of 10-43  $\mu\text{m}$  and 0-59% by volume of powder having a particle size of 43-315  $\mu\text{m}$ , which powder is obtained by grinding the spontaneously crystallizing melts of a material comprising crystalline and X-ray amorphous phases, which material

a) according to  $^{31}\text{P}$ -NMR measurements, contains Q.sub.0-groups of orthophosphate and Q.sub.1-groups of diphosphate, the orthophosphates or Q.sub.0-groups making up 65 to 99.9% by weight relative to the total phosphorus content of the powder mixture and the diphosphates or Q.sub.1-groups making up 0.1 to 35% by weight relative to the total phosphorus content of the powder mixture, and

b) according to X-ray diffractometric measurements and relative to the total weight of the powder mixture, contains 35 to 99.9% by weight of a main crystal phase consisting of various Ca-orthophosphates and 0.1 to 20% by weight of a secondary crystal phase consisting of various Ca-diphosphates and chain phosphates, and

c) besides the main crystal phase, contains an X-ray amorphous phase which in total makes up 0.1 to 65% by weight relative to the total weight of the powder mixture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 3 OF 6 USPATFULL on STN

ACCESSION NUMBER: 87:69965 USPATFULL

TITLE: Phosphate glass ceramic for biological and medical applications

INVENTOR(S): Vogel, Jurgen, Jena-Lobeda, German Democratic Republic  
Holand, Wolfram, Jena-Lobeda, German Democratic Republic

PATENT ASSIGNEE(S): Vogel, Werner, Jena, German Democratic Republic  
VEB Jenaer Glaswerk, Jena, German Democratic Republic  
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4698318		19871006
APPLICATION INFO.:	US 1984-667038		19841101 (6)

	NUMBER	DATE
PRIORITY INFORMATION:	DD 1984-2595611	19840124
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Dixon, Jr., William R.	
ASSISTANT EXAMINER:	Group, Karl	
LEGAL REPRESENTATIVE:	Jordan and Hamburg	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	8	
LINE COUNT:	361	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A phosphate glass ceramic which can be utilized especially as biomaterial in medicine and biology. The object of the invention is to provide a glass ceramic extensively adapted to bone, possessing adjustable biologically active characteristics. Another object of the invention is to produce a glass ceramic free of SiO.sub.2 or low in SiO.sub.2, of high P.sub.2 O.sub.5 and CaO content, possessing adjustable biologically active characteristics. The object is solved, whereby an initial glass of the composition having the mass percentages of Al.sub.2 O.sub.3 3-21, CaO 8-26, R.sub.2 O 10-25, P.sub.2 O.sub.5 43-58, is provided under the condition that R.sub.2 O can contain up to 25% of mass of Na.sub.2 O and up to 18% of mass of K.sub.2 O, and is thermally treated after melting, to provide the new phosphate glass ceramic. The main crystal phases are apatite and aluminiumorthophosphate. The phosphate glass ceramic can contain additions of SiO.sub.2, B.sub.2 O.sub.3, F.sup.-, MgO, FeO, Fe.sub.2 O.sub.3, TiO.sub.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 4 OF 6 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2003:86440 EPFULL  
ENTRY DATE PUBLICATION: 20060706  
UPDATE DATE PUBLICAT.: 20070530  
DATA UPDATE DATE: 20070530  
DATA UPDATE WEEK: 200722  
TITLE (ENGLISH): Phosphate containing bone substitute product with crystalline and amorphous phases  
TITLE (FRENCH): Matériau pour prothese osseuse a base de phosphate comprenant des phases cristallines et amorphes  
TITLE (GERMAN): Phosphathaltiger Knochenersatzwerkstoff mit kristallinen und roentgenamorphen Phasen  
INVENTOR(S): Berger, Georg, Jaegerstrasse 6, 16341 Zepernick, DE; Spitzer, Andrea, Gustav-Freytag-Strasse 6, 10827 Berlin, DE; Jaeger, Christian Prof., Biberweg 4, 07749 Jena, DE; Pauli, Jutta, Argenauer Strasse 20A, 12555 Berlin, DE; Gildenhaar, Renate, Amalienstrasse 24, 13086 Berlin, DE  
PATENT APPLICANT(S): BAM Bundesanstalt fuer Materialforschung und -pruefung, Unter den Eichen 87, 12205 Berlin, DE  
PATENT APPL. NUMBER: 4310690  
AGENT: Walter, Wolf-Juergen, et al, Anwaltskanzlei Gulde Hengelhaupt Ziebig & Schneider Wallstrasse 58/59, 10179

AGENT NUMBER: Berlin, DE  
 65802  
 DOCUMENT TYPE: Patent  
 LANGUAGE OF FILING: German  
 LANGUAGE OF PUBL.: German  
 LANGUAGE OF PROCEDURE: German  
 LANGUAGE OF TITLE: German; English; French  
 PATENT INFO TYPE: EPB1 Granted patent  
 PATENT INFORMATION:

	NUMBER	KIND	DATE
DESIGNATED STATES:	EP 1413322	B1	20060705
	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI		
	LU MC NL PT RO SE SI SK TR		
APPLICATION INFO.:	EP 2003-90349	A	20031016
PRIORITY INFO.:	DE 2002-10249626	A	20021021
CITED PATENT LIT.:	WO 9107357	A	
	DE 19744809	C	
	US 3922155	A	

#### ABEN

Bone substitute material comprises a primary crystal phase consisting of calcium sodium and/or potassium orthophosphates

Bone substitute material comprises 65-99.9 weight% orthophosphates and 0.1-35 weight% diphosphates and comprises 35-99.9 weight% of a primary crystal phase consisting of calcium sodium and/or potassium orthophosphates, 0.1-20 weight% of a secondary crystal phase consisting of disodium calcium diphosphate, dipotassium calcium diphosphate and/or dicalcium diphosphate, and 0.1-65 weight% of an amorphous phase. Bone substitute material comprises 65-99.9 weight% orthophosphates and 0.1-35 weight% diphosphates and comprises 35-99.9 weight% of a primary crystal phase consisting of calcium sodium and/or potassium orthophosphates of formula (I), 0.1-20 weight% of a secondary crystal phase consisting of disodium calcium diphosphate, dipotassium calcium diphosphate and/or dicalcium diphosphate, and 0.1-65 weight% of an amorphous phase.  $\text{Ca}_{10}\text{K}_x\text{Na}_{1-x}(\text{PO}_4)_7$  (I)  $x = 0-1$ . Independent claims are also included for: (1) a process for producing the bone substitute material; (2) glass for use as a sintering aid for bioabsorbable calcium phosphate materials other than beta-tricalcium phosphate, having the following oxide composition (weight%): silicon (73-78), magnesium (8-11), sodium (12-19), potassium (0-22), phosphorus (0-20).

#### ABDE

Die Erfindung betrifft ein orthophosphathaltiges Material mit hoher Löslichkeit, das als bioaktiver Knochenersatzwerkstoff und als Substratmaterial in der Biotechnologie Anwendung finden kann. Der neue Werkstoff umfasst nach <sup>31</sup>P-NMR-Messungen Q0-Gruppen von Orthophosphat und Q1-Gruppen von Diphosphat, wobei die Orthophosphate respektive Q0-Gruppen, bezogen auf den Gesamtphosphorgehalt des fertigen Werkstoffes, 65 bis 99,9 Gew-% betragen, und die Diphosphate respektive Q1-Gruppen, bezogen auf den Gesamtphosphorgehalt des fertigen Werkstoffes, 0,1 bis 35 Gew-% betragen; und wobei nach roentgendiffraktometrischen Messungen, bezogen auf das Gesamtgewicht des fertigen Werkstoffes, 35 bis 99,9 Gew-% einer Hauptkristallphase aus  $\text{Ca}_{10}\text{Na}(\text{PO}_4)_7$ ,  $\text{Ca}_{10}\text{K}(\text{PO}_4)_7$ , Gemische davon oder Mischkristalle im Umfang von  $\text{Ca}_{10}\text{K}_x\text{Na}_{1-x}(\text{PO}_4)_7$  mit  $x=0$  bis 1 in dem Knochenersatzwerkstoff enthalten sind, und als Nebenkristallphase, bezogen auf das Gesamtgewicht des fertigen Werkstoffes, 0,1 bis 25 Gew-% eines Stoffes enthalten sind, ausgewählt aus der Gruppe, bestehend aus  $\text{Na}_2\text{CaP}_2\text{O}_7$ ,  $\text{K}_2\text{CaP}_2\text{O}_7$ ,  $\text{Ca}_2\text{P}_2\text{O}_7$  und Gemische davon; und wobei die roentgenamorphen Phasen neben der Hauptkristallphase insgesamt 0,1 bis 65 Gew-% betragen.

ACCESSION NUMBER: 2003:86439 EPFULL  
 ENTRY DATE PUBLICATION: 20060215  
 UPDATE DATE PUBLICAT.: 20061218  
 DATA UPDATE DATE: 20061213  
 DATA UPDATE WEEK: 200650  
 TITLE (ENGLISH): Phosphate containing bone substitute product with crystalline and amorphous phases  
 TITLE (FRENCH): Matériau pour prothese osseuse a base de phosphate comprenant des phases cristallines et amorphes  
 TITLE (GERMAN): Phosphathaltiger Knochenersatzwerkstoff mit kristallinen und roentgenamorphen Phasen  
 INVENTOR(S): Berger, Georg, Jaegerstrasse 6, 16341 Zepernick, DE; Spitzer, Andrea, Gustav-Freytag-Strasse 6, 10827 Berlin, DE; Jaeger, Christian Prof., Biberweg 4, 07749 Jena, DE; Pauli, Jutta, Argenauer Strasse 20A, 12555 Berlin, DE; Gildenhaar, Renate, Amalienstrasse 24, 13086 Berlin, DE  
 PATENT APPLICANT(S): BAM Bundesanstalt fuer Materialforschung und -pruefung, Unter den Eichen 87, 12205 Berlin, DE  
 PATENT APPL. NUMBER: 4310690  
 AGENT: Walter, Wolf-Juergen, et al, Anwaltskanzlei Gulde Hengelhaupt Ziebig & Schneider Wallstrasse 58/59, 10179 Berlin, DE  
 AGENT NUMBER: 65802  
 DOCUMENT TYPE: Patent  
 LANGUAGE OF FILING: German  
 LANGUAGE OF PUBL.: German  
 LANGUAGE OF PROCEDURE: German  
 LANGUAGE OF TITLE: German; English; French  
 PATENT INFO TYPE: EPB1 Granted patent  
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 1413321	B1	20060104
DESIGNATED STATES:	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR		
APPLICATION INFO.:	EP 2003-90348	A	20031016
PRIORITY INFO.:	DE 2002-10249627	A	20021021
CITED NON PATENT LIT.:	KNABE C ET AL: "Morphological evaluation of osteoblasts cultured on different calcium phosphate ceramics" BIOMATERIALS, ELSEVIER SCIENCE PUBLISHERS BV., BARKING, GB, Bd. 18, Nr. 20, 1997, Seiten 1339-1347, XP004091898 ISSN: 0142-9612		
CITED PATENT LIT.:	WO 9107357	A	
	DE 19744809	C	
	US 3922155	A	

## ABEN

Bone substitute material comprises a primary crystal phase consisting of calcium sodium and/or potassium orthophosphates

Bone substitute material comprises 70-99.9 weight% orthophosphates and 0.1-30 weight% diphosphates and comprises 30-99.9 weight% of a primary crystal phase consisting of calcium sodium and/or potassium orthophosphates, 0.1-20 weight% of a secondary crystal phase consisting of disodium calcium diphosphate, dipotassium calcium diphosphate and/or dicalcium diphosphate, and 0.1-70 weight% of an amorphous phase. Bone substitute material comprises 70-99.9 weight% orthophosphates and 0.1-30 weight% diphosphates and comprises 30-99.9 weight% of a primary crystal phase consisting of calcium sodium and/or potassium orthophosphates of formula (I), 0.1-20 weight% of a secondary crystal phase consisting of disodium calcium diphosphate, dipotassium calcium

diphosphate and/or dicalcium diphosphate, and 0.1-70 weight% of an amorphous phase.  $\text{Ca}_2\text{K}_1\text{-xNa}_1\text{x(PO}_4)_2$  (I)  $x = 0.1-0.9$ . Independent claims are also included for: (1) a process for producing the bone substitute material; (2) glass for use as a sintering aid for bioabsorbable calcium phosphate materials other than beta-tricalcium phosphate, having the following oxide composition (weight%): silicon (73-78), magnesium (8-11), sodium (12-19), potassium (0-22), phosphorus (0-20).

ABDE

Die Erfindung betrifft ein roentgenamorph-kristallines Material mit hoher Loeslichkeit, das als bioaktiver Knochenersatzwerkstoff und als Substratmaterial in der Biotechnologie Anwendung finden kann. Der neue Werkstoff mit kristallinen und roentgenamorphen Phasen ist dadurch gekennzeichnet, dass er nach  $\text{P-NMR}$ -Messungen  $\text{Q}_0$ -Gruppen von Orthophosphat und  $\text{Q}_1$ -Gruppen von Diphosphat enthaelt, wobei die Orthophosphate respektive  $\text{Q}_0$ -Gruppen, bezogen auf den Gesamtphosphorgehalt des fertigen Werkstoffes, 70 bis 99,9 Gew-% betragen, und die Diphosphate respektive  $\text{Q}_1$ -Gruppen, bezogen auf den Gesamtphosphorgehalt des fertigen Werkstoffes, 0,1 bis 30 Gew-% betragen, und nach roentgendiffraktometrischen Messungen, bezogen auf das Gesamtgewicht des fertigen Werkstoffes, 30 bis 99,9 Gew-% einer Hauptkristallphase aus  $\text{Ca}_2\text{K}_1\text{-xNa}_1\text{x(PO}_4)_2$  mit  $x=0,1$  bis  $0,9$  in dem Knochenersatzwerkstoff enthalten sind, und als Nebenkristallphase, bezogen auf das Gesamtgewicht des fertigen Werkstoffes, 0,1 bis 20 Gew-% eines Stoffes enthalten sind, ausgewaehlt aus der Gruppe, bestehend aus  $\text{Na}_2\text{CaP}_2\text{O}_7$ ,  $\text{K}_2\text{CaP}_2\text{O}_7$ ,  $\text{Ca}_2\text{P}_2\text{O}_7$  und Gemische davon, und wobei die roentgenamorphen Phasen neben der Hauptkristallphase insgesamt 0,1 bis 70 Gew-% betragen, bezogen auf das Gesamtgewicht des fertigen Werkstoffes.

L6 ANSWER 6 OF 6 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2003:86438 EPFULL  
 ENTRY DATE PUBLICATION: 20060706  
 UPDATE DATE PUBLICAT.: 20070530  
 DATA UPDATE DATE: 20070530  
 DATA UPDATE WEEK: 200722  
 TITLE (ENGLISH): Powder mixture for resorbable calcium phosphate bio-cements  
 TITLE (FRENCH): Melange de poudre pour un ciment resorbable a base de phosphate de calcium  
 TITLE (GERMAN): Pulvergemisch fuer resorbierbare Calciumphosphat-Biozemente  
 INVENTOR(S): Berger, Georg, Jaegerstrasse 6, 16341 Zepernick, DE; Marx, Heidi, Gensinger Strasse 70, 10315 Berlín, DE; Jaeger, Christian Prof., Biberweg 4, 07749 Jena, DE; Pauli, Jutta, Argenauer Strasse 20A, 12555 Berlin, DE  
 PATENT APPLICANT(S): BAM Bundesanstalt fuer Materialforschung und -pruefung, Unter den Eichen 87, 12205 Berlin, DE  
 PATENT APPL. NUMBER: 4310690  
 AGENT: Walter, Wolf-Juergen, et al, Anwaltskanzlei Gulde Hengelhaupt Ziebig & Schneider Wallstrasse 58/59, 10179 Berlin, DE  
 AGENT NUMBER: 65802  
 DOCUMENT TYPE: Patent  
 LANGUAGE OF FILING: German  
 LANGUAGE OF PUBL.: German  
 LANGUAGE OF PROCEDURE: German  
 LANGUAGE OF TITLE: German; English; French  
 PATENT INFO TYPE: EPB1 Granted patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
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EP 1413320	B1	20060705
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DESIGNATED STATES: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI



	LU	MC	NL	PT	RO	SE	SI	SK	TR
APPLICATION INFO.:	EP	2003-90347						A	20031016
PRIORITY INFO.:	DE	2002-10249625						A	20021021
CITED PATENT LIT.:	EP	1153621						A	
	WO	9107357						A	
	DE	19744809						C	
	US	3922155						A	

#### ABEN

Powder for making bioabsorbable calcium phosphate cements, e.g. for repairing bone defects, has a primary crystal phase consisting of calcium sodium and/or potassium orthophosphates

Powder for making bioabsorbable calcium phosphate cements has a defined particle size distribution, comprises 65-99.9 weight% orthophosphates and 0.1-35 weight% diphosphates, and comprises 35-99.9 weight% of a primary crystal phase consisting of calcium sodium and/or potassium orthophosphates, 0.1-20 weight% of a secondary crystal phase consisting of sodium and/or potassium polyphosphates, and 0.1-65 weight% of an amorphous phase.

Powder for making bioabsorbable calcium phosphate cements comprises 40-99 volume% of 0.1-10  $\mu\text{m}$  particles, 1-20 volume% of 10-43  $\mu\text{m}$  particles and 0-59 volume% of 43-315  $\mu\text{m}$  particles, comprises 65-99.9 weight% orthophosphates and 0.1-35 weight% diphosphates, and comprises 35-99.9 weight% of a primary crystal phase consisting of calcium sodium and/or potassium orthophosphates of formula (I) and/or (II), 0.1-20 weight% of a secondary crystal phase consisting of sodium and/or potassium polyphosphates, and 0.1-65 weight% of an amorphous phase.  $\text{Ca}_2\text{K}_1\text{-xNa}_1\text{+x(PO}_4)_2$  (I)  $\text{Ca}_{10}\text{KyNa}_{1\text{-y}}(\text{PO}_4)_7$

(II)  $x = 0.1\text{-}0.9$ ;  $y = 0\text{-}1$ . An Independent claim is also included for a biodegradable implant with open or closed porosity made from a powder as above in the form of an aqueous solution, suspension or paste that has been hardened ex vivo.

#### ABDE

Die Erfindung betrifft ein Pulvergemisch fuer resorbierbare Calciumphosphat-Biozemente aus 40-99 Vol-% Pulver mit 0,1 - 10  $\mu\text{m}$  Teilchengroesse, 1-20 Vol-% Pulver mit 10 - 43  $\mu\text{m}$  Teilchengroesse und 0-59 Vol-% Pulver mit 43 - 315  $\mu\text{m}$  Teilchengroesse, wobei das Pulver aus aufgemahlenen, spontan kristallisierenden Schmelzen eines Materials mit kristallinen und Glasphasen besteht, das

a) nach  $^{31}\text{P}$ -NMR-Messungen Q0-Gruppen von Orthophosphat und Q1-Gruppen von Diphosphat enthaelt, wobei die Orthophosphate respektive Q0-Gruppen, bezogen auf den Gesamthosphorgehalt des Pulvergemisches, 65 bis 99,9 Gew-% betragen, und die Diphosphate respektive Q1-Gruppen, bezogen auf den Gesamthosphorgehalt des Pulvergemisches, 0,1 bis 35 Gew-% betragen, und

b) nach roentgendiffraktometrischen Messungen, bezogen auf das Gesamtgewicht des Pulvergemisches, 35 bis 99,9 Gew-% einer Hauptkristallphase aus verschiedenen Caorthophosphaten und 0-20 Gew-% Nebenkristallphase aus verschiedenen Cadiphosphaten und Kettenphosphaten enthalten sind, und

c) eine amorphe oder Glasphase neben der Hauptkristallphase insgesamt 0,1 bis 65 Gew-% betraegt, bezogen auf das Gesamtgewicht des Pulvergemisches.